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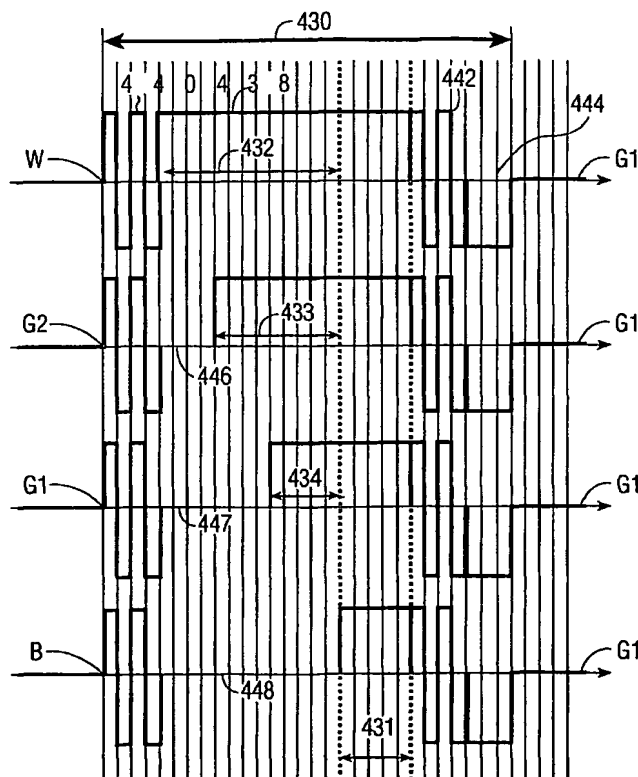
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- (21) International Application Number: **PCT/IB2004/052409** (72) Inventors; and (75) Inventors/Applicants (for US only): **ZHOU, Guofu** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). **JOHNSON, Mark T.** [GB/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
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(54) Title: **BI-STABLE DISPLAY WITH DC-BALANCED OVER-RESET DRIVING**



(57) Abstract: A display device (101) has groups of display elements (118), which are changed from one optical state to another optical state by applying a waveform sequence of potential differences. The waveform enables particles (108, 109) to occupy a position corresponding to the other optical state and includes standard reset, over-reset and grayscale drive. The standard reset part of the waveform applies a potential difference, which is proportional to a distance the particles (108, 109) must move to reach one of the extreme optical states and the over-reset is independent of the distance. Grayscale or color scale accuracy is improved and direct charge on a pixel may be balanced over time with consequent grayscale drift compensated by tuning the grayscale driving pulse.



MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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